Extra

IDA GREEN 22
761029-761103

United States Department of the Interior

GEOLOGICAL SURVEY

In ADMIN 5/1/79

Office of Marine Geology
P. O. Box 6732
Corpus Christi, Texas 78411

76045-

November 5, 1976

Mr. Gerald P. Pfeiffer, Technical Co-ordinator
STOCS - BLM Project
University of Texas Marine Science Institute
Port Aransas, Texas 78373

Dear Jerry:

Please find enclosed the cruise report for the first STOCS suspended sediment cruise under our second-year (FY 77) BLM contract. The cruise was successfully completed, and Bob Ewing of UTMSL - Galveston will invoice you directly for the R/V IDA GREEN shiptime charges, as was originally agreed upon. We wish to thank UTMSL - Port Aransas for the loan of the portable chemistry laboratory which functioned ideally.

Thank you for your co-operation.

Sincerely

Gerald L. Shideler

Gerald L. Shideler
Geologist

Encl: Cruise report

cc: R. Defenbaugh
H. Berryhill
P. Parker

CRUISE REPORT & TRACK LINE MAP

IDA GREEN #25
10-29-76 TO
11-3-76

#76045

Cruise Report
(South Texas OCS Project)

1. Ship: R/V IDA GREEN

2. Cruise Number/Leg: Ida Green Cruise No. 22

3. Area of Operations: South Texas OCS between Matagorda Bay and the U.S./Mexico international border. Work extended from the 30 ft. isobath to the shelf break at 600 ft. Area encompassed within 26°0'-28°25' N. latitude, and 95°57'-97°15' W. longitude.

4. Dates of Operations & Port Stops: Cruise period was from 10-29-76 to 11-3-76. The ship departed from, and returned to, the port of Corpus Christi, Texas.

5. Personnel & Affiliations:

Ship Captain:	Otis Murray (Univ. Texas Marine Science Inst.--Galveston)
Chief Scientist:	Gerald L. Shideler (U.S.G.S.)

Scientific Crew:

Ron Miller	(U.S.G.S.)
Cary Pyle	"
Brian Murphy	"
Fran Firek	"
Betty Willingham	"
Cyndi Rice	"
Bill Allshouse	"
Stan Linquist	"
Ron Circe	"
Ken Roberts	"
Jack Kindinger	"

6. Purpose: The general scientific objective of the cruise was to obtain quasi-synoptic information on the suspended sediment transport system within the South Texas OCS. Specific objectives consisted of the following: A) Obtaining samples of the water column for analyses of sediment texture and concentration, water chemistry, and coccoliths, in order to establish seasonal variability patterns, B) Obtaining vertical transmittance-temperature profiles, in order to establish seasonal turbidity patterns, C) Casting drift bottles to measure surface currents during the cruise period.

7. Scientific Equipment: Equipment utilized includes: transmissometer system with temperature and depth sensors (Martek), precision depth recording system, 30-liter Niskin water sample bottles, X-YY' plotter, and EPC recorder.

8. Navigation Techniques: The coastal inlet stations were positioned by

radar navigation; these stations are: #1, 1A, 2, 9, 9A, 23, 23A, and 24. Most other deeper water stations were positioned with LORAN-A.

9. Data Acquired: 1. Vertical transmittance-temperature profiles of the water column at 26 stations; 2. Three water-column samples (surface, mid-depth, bottom) at each of 26 stations. 3. A total of 312 drift bottles were cast.

10. Comments: This cruise was the fourth of six cruises designed to evaluate the seasonal variability of suspended sediment transport patterns within the South Texas OCS region. The remaining two cruises are scheduled for March and May, 1977.

11. Tabulated Information:

    a. Days at sea - 5
    b. Working days at sea - 5
    c. Total ship's track (km) - 900
    d. Continuous data (km) - not applicable
    e. Total number of stations - 26
    f. Number of sample types: 78 water samples (3 samples at each of 26 stations); 26 vertical transmittance-temperature profiles.

12. Track Chart: Attached

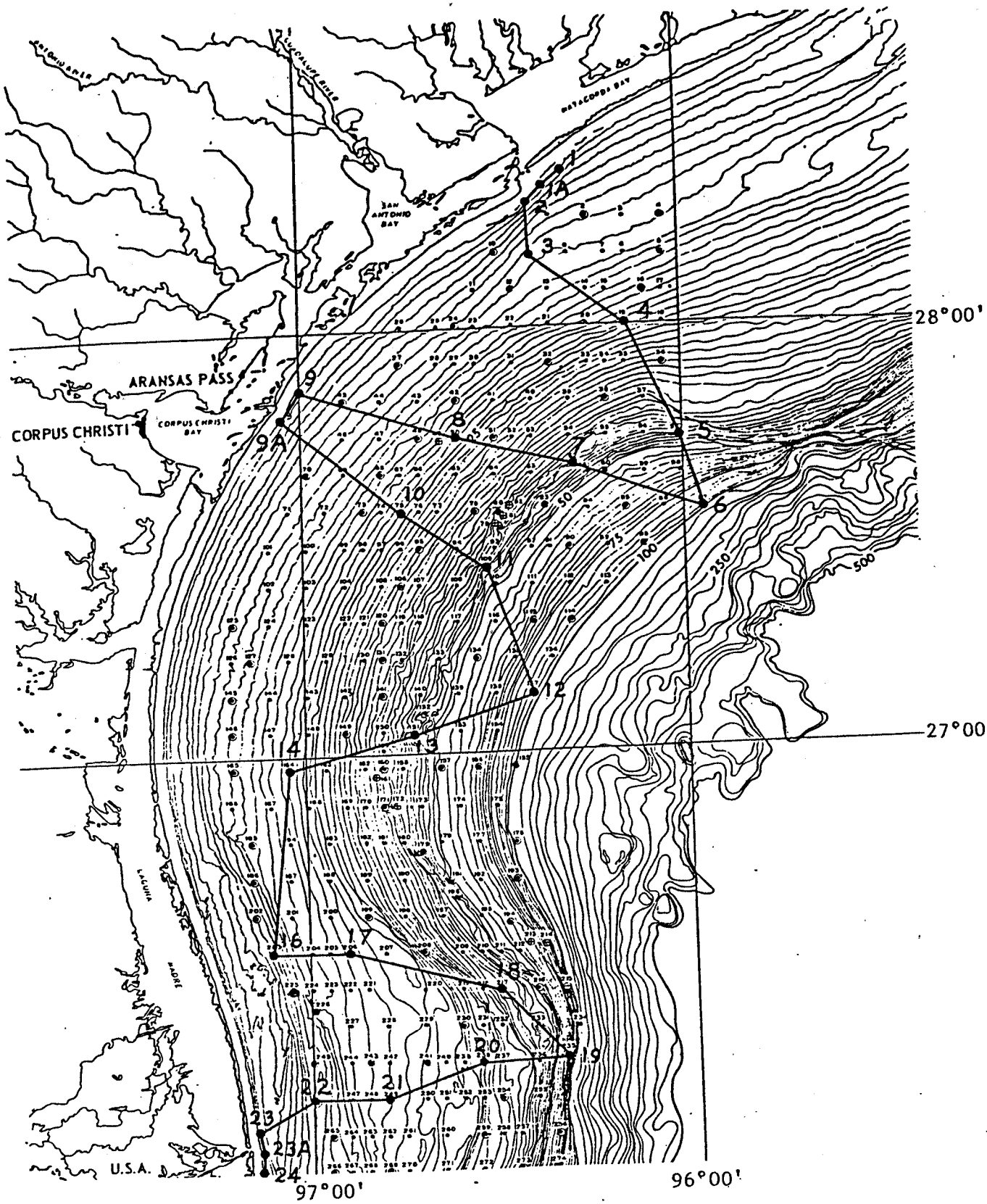

Figure 1 - Ship Track Chart

Publications

*Cruises: 32, 36, 41: R/V Fay Leg 006 11/15/75 to 11/21/75
R/V Fay Leg 010 3/2/76 to 3/6/76
R/V Fay Leg 015 5/21/76 to 5/26/76

**Cruises: 46, 51, 53: R/V Ida Green 10/29/76 to 11/3/76
Decca Profiler 3/17/77 to 3/21/77
Decca Profiler 5/24/77 to 5/27/77

*Shideler, G. L. 1977, Suspended sediments: physical characteristics, in Berryhill, H. L., Jr. (editor), Environmental Studies, South Texas Outer Continental Shelf, 1976: Geology: U.S. Geological Survey Final Administrative Report to Bureau of Land Management (Contract AA550-MU6-24), p. 22-94.

*Shideler, G. L., 1977, Suspended-Sediment distribution of the South Texas Outer Continental Shelf, northwest Gulf of Mexico (abs.): American Association Petroleum Geologists Bulletin, Vol. 61, p. 830.

*Shideler, G. L., 1977, Temporal and spatial variability of regional turbidity patterns on the South Texas Outer Continental Shelf, in Abstracts with Programs, Geological Society of America, V. 9, p. 1173.

***Shideler, G. L., 1978, Physical characteristics of suspended sediments, South Texas Continental Shelf: U.S. Geological Survey Final Administrative Report to Bureau of Land Management, 83P.

***Shideler, G. L., 1979, Regional surface turbidity and hydrographic variability on the South Texas Continental Shelf, Gulf of Mexico, A time-sequence study (abst): American Association Petroleum Geologists Bulletin, Vol. 63, p. 527 to 528.

***Shideler, G. L., 1979, Physical characteristics of suspended sediments, South Texas Continental Shelf: U.S. Geological Survey Open-File report 79-362, 68 p.

**Shideler, G. L., 1978, Suspended sediments: physical characteristics, In Berrynill, H. L., Jr. (editor), Endironmental Studies, South Texas OCS, 1977: Geology: U.S. Geological Survey Final Administrative Report to BLM, 73 p.

***Includes Cruises 32, 36, 41, 46, 51, 53